



Application Number: 10/723,917

Claims

What is claimed is:

1. A seating apparatus called a Three Position Anti-clotting Upright Reclinable Passenger Seat comprising of the following assemblies:
 - a main seat frame,
 - a back seat,
 - a sub back seat,
 - a seat pan,
 - a footrestand an automatic system of mechanisms and controls to position the back seat, the sub back seat and the seat pan assemblies to obtain three different positions, one of which allows passengers to extend the legs in a sloped naturally manner to minimize the fatal clotting in the legs caused by long extended trips.
2. The back seat assembly as per Claim 1 above which is supported at the bottom at the main seat frame assembly and it is allowed to swivel within the two stop limits(back and forward) to provide the back support for take-off and the reading position.
3. The back seat assembly as per Claim 2 which can be swiveled at the bottom and it is made out of two separate assemblies, a back seat assembly and a sub back seat assembly.
4. The back seat assembly as per Claim 2 which supports the sub back seat assembly by a longitudinal horizontal bar at the top allowing the back seat and the sub back seat assemblies to swivel upwards in a

rising manner.

5. The sub back seat assembly as per Claim 1 which is concealed within the back seat assembly during take off and reading positions.
6. The sub back seat assembly as per Claim 1 which is supported and hinged at the top together with the back seat assembly; and it is supported and hinged at the bottom to the seat pan assembly to provide, once raised, a coplanar flat platform to provide a resting, comfortable surface.
7. The seat pan assembly as per Claim 1 supported at the front edge and the back edge by two pairs of raising able actuator members attached to the main seat frame. The seat pan assembly is raised up and down by the positioning mechanism which is anchored to the main seat frame.
8. The seat pan assembly as per Claim 7 which is raised and tilted during the accomplishing of the upright reclinable position to provide a coplanar flat platform which forms a continuous resting, comfortable surface with the sub back seat assembly.
9. The actuating raise able support members in Claim 7 which control the raising and lowering of the both the sub back seat and the seat pan assemblies.
10. The foot rest assembly as per Claim 1 which is fully extended in the upright position which allows the passenger to rest the feet comfortably in the upright reclinable position.
11. A take-off and landing position of the assembly of Claim 1 where the back seat (hinged at the bottom edge) and the seat pan(hinged at the back edge) assemblies are hinged connected to each other and positioned slightly open by more than ninety degrees to each other.
12. A reading or slightly reclined position of the seat assembly of Claim 1

where the back seat(hinged at the bottom edge) and the seat pan(hinged at the back edge) are hinged connected to each other and positioned in a more tilted position from each other and in a considerably more open manner than ninety degrees angle fashion to provide the reading position of the seat assembly.

13. A upright sloped reclinable resting position of the assembly of Claim 1 where the sub back seat assembly, the seat pan assembly and the foot rest are raised and aligned to each other in such manner to provide a straight and sloped cushioned surface to provide a restful, comfortable platform for sleeping and resting in an upright reclinable position which allows the legs to be stretched.
14. An upright sloped reclinable resting position of the seat assembly of Claim 13 which maximizes horizontal space allocated for the reading position.
15. The coordinated sequences, mechanisms and the actuation to control the sequencing of the raising and lowering of the back seat, the seat pan and the foot rest assemblies in unison and in a coordinated manner as per Claims 11, 12, 13 and 14.
16. The controls and actuation required for obtaining the three positions expressed in Claims 11,12,13 and 14, those being electrical, mechanical or otherwise which will allow the positioning of the seat assemblies in Claim1 in three different positions those being: a) take off and landing, b) reading or slightly reclined and c) a raised upright reclined position.
17. The methods, sequences, controls, assemblies and subassemblies part of this apparatus required to obtain the Claims 11,12,13 and 14 which will allow a person to travel and rest on a raised comfortable

upright reclining position with the extended legs in flatter position for resting, a reading position as well as a safe seat position for take-off and landing

18. The mechanisms, the electrical or electronic controls and the electrical hardness and switching to attain the sequencing of the seat assembly to the various positions starting at the take-off position, to the resting position to the upright reclaimable position and to reverse that order.